THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

_____

Ex parte RONALD P. REITZ

_____

Appeal No. 95-3835
Application 08/107,047[1]

_____

ON BRIEF

_____

Before METZ, OWENS and WALTZ, *Administrative Patent Judges.*

OWENS, *Administrative Patent Judge.*

DECISION ON APPEAL

This is an appeal from the examiner's final rejection of claims 1-7 and 20-32, which are all of the claims remaining in the application.

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[1] Application for patent filed August 17, 1993. According to the appellant, the application is a continuation of Application 07/810,545, filed December 19, 1991, abandoned; which is a continuation of Application 07/593,149, filed October 5, 1990, abandoned; and which is a continuation-in-part of Application 07/405,178, filed September 11, 1989, now Patent No. 5,194,181, issued March 16, 1993.

THE INVENTION

Appellant claims a composite article which includes a cured electrosetting composition which contains aligned particles and is produced by a recited process. Claim 1 is illustrative and reads as follows:

1. A composite article, comprising:

a first electrically conductive substrate;

a second electrically conductive substrate spaced apart from said first electrically conductive substrate;

cured electrosetting composition between said first and second substrates, said cured electrosetting composition having embedded therein voids and having embedded therein columns of aligned particles;

said voids and columns having been produced by the application of an electric current to said electrosetting composition during the time when said composition was curing, said electric current having an electric current density of at least 0.667 milliamps per square inch;

wherein said electrosetting composition comprises, in an uncured state, a phase changing vehicle and an aggregate, said phase changing vehicle being both a dielectric and a polymer, said aggregate comprising particles which will polarize in an electric field, said uncured electrosetting composition being capable of carrying an electric current density of at least 0.667 milliams[sic, milliamps] per square inch.

THE REFERENCES

Neet et al. (Neet) 4,505,973 Mar. 19, 1985

7 *Kirk-Othmer Encyclopedia of Chemical Technology* 729 (John Wiley & Sons, 3d ed. 1980) (ECT).

THE REJECTIONS

Claims 1-7 and 20-32 stand rejected under 35 U.S.C. § 112, first paragraph, on the ground that the specification fails to provide an enabling disclosure for the claimed invention. Claims 1-6, 20, 21, 23, 24, 26, 27, 29, 30 and 32 stand rejected under 35 U.S.C. § 102(b) as being anticipated by, and under 35 U.S.C. § 103 as being obvious over, each of Neet and ECT.[2]

OPINION

We have carefully considered all of the arguments advanced by appellant and the examiner and agree with appellant that the aforementioned rejections are not well founded. Accordingly, these rejections will be reversed.

Rejection under 35 U.S.C. § 112, first paragraph

The examiner argues that the electrosetting property recited in appellant's claims is due to highly unpredictable chemical interactions and that the claims therefore must be limited to materials which have been shown to have electrosetting properties (answer, pages 2-3 and 5-8). The examiner acknowledges that appellant has, as pointed out by appellant (brief, pages 12-13), disclosed working examples, but argues that appellant provides no theory or general reference which gives guidance which would enable one of

[2] The rejections of claims 7, 22, 25, 28 and 31 over prior art were withdrawn in the examiner's answer (page 3).

ordinary skill in the art to extend appellant's disclosure beyond the working examples (answer, page 6). Appellant argues that the disclosure in U.S. 5,194,181 to Reitz provides a teaching at column 8, lines 51-64, which may be such a theory, and that the examiner has provided no reasoning in support of the asserted nonenablement (brief, page 21).

A specification complies with the 35 U.S.C. § 112, first paragraph, enablement requirement if it allows those of ordinary skill in the art to make and use the claimed invention without undue experimentation. *See In re Wright*, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993); *Atlas Powder Co. v. E.I. du Pont De Nemours & Co.,* 750 F.2d 1569, 1576, 224 USPQ 409, 413 (Fed. Cir. 1984). As stated by the court in *Wright*, 999 F.2d at 1561-62, 27 USPQ2d at 1513:

> Nothing more than objective enablement is required, and therefore it is irrelevant whether this teaching is provided through broad terminology or illustrative examples. [Citation omitted.]
>
> When rejecting a claim under the enablement requirement of section 112, the PTO bears an initial burden of setting forth a reasonable explanation as to why it believes that the scope of protection provided by that claim is not adequately enabled by the description of the invention provided in the specification of the application; this includes, of course, providing sufficient reasons for doubting any assertions in the specification as to the scope of enablement. If the PTO meets this burden, the burden then shifts to the applicant to provide suitable proofs indicating that the specification is indeed enabling. [Citation omitted.]

The examiner asserts that it was highly unpredictable whether a material is electrosettable, but provides no supporting evidence. We note that the teaching in U.S. 5,194,181 which indicates that electrosettable compositions include any phase changing composition which is substantially a dielectric material and is otherwise settable or curable (col. 4, lines 4-14; col. 8, lines 59-64) appears to be contrary to the examiner's assertion. Also, the examiner sets forth no reasoning as to why the disclosure regarding electrosettable materials in U.S. 5,194,181 and the examples relied upon by appellant would not have enabled one of ordinary skill in the art to carry out appellant's invention as claimed. Accordingly, we conclude that the examiner has not carried his burden of establishing a *prima facie* case of nonenablement of appellant's claimed invention.

Rejection over Neet

Neet discloses a rigid polyurethane foam having carbon black mixed therein, preferably by simply mixing carbon black with each of the two components used to prepare the rigid foam (col. 2, lines 26-27 and 38-42). The carbon black preferably is homogeneously mixed in the two components (col. 3, lines 12-21). In an example, before the resistivities of samples of the carbon black-containing polyurethane foam are measured, the ends of the samples are coated with an electrolytic paste and then copper electrodes are applied to the ends (col. 4, lines 14-20).

Each of appellant's independent claims requires that the particles be aligned.

Appellant states in his specification (page 15, line 25 - page 16, line 1) that the particles tend to form columns along the electric lines of flux. The examiner states that since no particular alignment is recited in the claims, he considers Neet's homogeneously-distributed particles to be aligned (answer, page 10). Appellant argues, based on dictionary definitions, that aligned particles must be disposed in a line (reply brief, pages 5-6).

We agree with appellant that appellant's claims require that the particles be disposed in lines. The examiner has provided no evidence that Neet's mixing of carbon black particles into the polyurethane foam components produces lines of particles in the foam. Also, the examiner has not explained why or how one of ordinary skill in the art would have modified Neet's method such that the carbon black particles are aligned. Consequently, the examiner has not established a *prima facie* case of anticipation or obviousness of appellant's claimed invention over Neet.

Rejection over ECT

Page 729 of ECT, which is relied upon by the examiner (answer, page 3), discloses a liquid crystal device. The examiner argues that the liquid crystal molecules become aligned and solid when electric current is passed through them, and that if the medium surrounding the particles were a fluid, the aligned particles would not stay aligned and separated as shown in Fig. 5 of ECT (answer, page 11).

Each of appellant's independent claims requires that the electrosetting composition is cured. As indicated on page 733 of the portion of ECT provided by appellant, the liquid crystal material in a liquid crystal device is in the form of a viscous fluid. The material is not cured. If it were cured, the molecules could not switch back and forth between the two positions shown in Fig. 5 of ECT (page 729) as the electrical field alternately is applied and terminated, and the device would be inoperable.

Also, the examiner has set forth no explanation as to why or how one of ordinary skill in the art would have modified the liquid crystal device such that the liquid crystal material is cured.

For the above reasons, the examiner has not established a *prima facie* case of anticipation or obviousness of appellant's claimed invention over ECT.

DECISION

The rejections of claims 1-7 and 20-32 under 35 U.S.C. § 112, first paragraph, on the ground that the specification fails to provide an enabling disclosure for the claimed invention, and of claims 1-6, 20, 21, 23, 24, 26, 27, 29, 30 and 32 under 35

U.S.C. §§ 102(b) and 103 over each of Neet and ECT, are reversed.

REVERSED

ANDREW H. METZ	)
Administrative Patent Judge	)
	)
	)
	) BOARD OF PATENT
TERRY J. OWENS	)
Administrative Patent Judge	) APPEALS AND
	)
	) INTERFERENCES
	)
THOMAS A. WALTZ	)
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